

STATE OF IOWA  
DEPARTMENT OF COMMERCE  
UTILITIES BOARD

IN RE:  INTERSTATE POWER AND LIGHT COMPANY	DOCKET NO. EPB-02-150
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**PROPOSED DECISION AND ORDER**

(Issued March 14, 2003)

**APPEARANCES**

MR. KENT M. RAGSDALE and MS. JENNIFER S. MOORE, attorneys at law, 200 First Street SE, P.O. Box 351, Cedar Rapids, Iowa 52406-0351, appearing on behalf of Interstate Power and Light Company.

MR. BEN STEAD, attorney at law, 310 Maple Street, Des Moines, Iowa 50319, appearing on behalf of the Iowa Department of Justice, Office of Consumer Advocate.

MS. ANNE M. PREZIOSI, attorney at law, 7900 Hickman Road, Suite 1, Urbandale, Iowa 50322, appearing on behalf of the Iowa Department of Natural Resources.

MS. SUZAN M. STEWART and MS. MARGARET A. ROY, attorneys at law, 401 Douglas Street, P.O. Box 778, Sioux City, Iowa 51102, appearing on behalf of MidAmerican Energy Company.

**STATEMENT OF THE CASE**

On March 29, 2002, Interstate Power and Light Company (IPL) filed with the Utilities Board (Board) its multiyear plan and budget for managing regulated emissions from its coal-fueled electric power generating facilities located in Iowa pursuant to Iowa Code Supp. § 476.6(25) (2001). IPL also filed testimony and

exhibits in support of the emissions plan and budget (EPB). The EPB covered the time period 2002 through 2006. IPL requested that the Board approve its EPB. IPL also requested that the Board find a ten-year straight-line depreciation schedule reasonable for the capital costs of the Combustion Initiative (CI) in the EPB, and stated it would propose a mechanism to recover EPB costs in its general rate case (Docket Nos. RPU-02-3 and RPU-02-8).

Iowa Code Supp. § 476.6(25)(a)(3) provides that an investor-owned utility's EPB shall be considered in a contested case proceeding pursuant to Iowa Code Chapter 17A. The statute further provides that the Environmental Protection Division of the Department of Natural Resources (DNR) and the Consumer Advocate Division of the Department of Justice (Consumer Advocate) shall participate as parties to the proceeding.

The Board docketed the proceeding as a formal contested case and established a procedural schedule for filing testimony in an order issued April 26, 2002. The DNR and Consumer Advocate filed appearances, and MidAmerican Energy Company (MidAmerican) filed a petition to intervene, which was granted by Board order issued May 21, 2002.

On May 31, 2002, IPL filed a clarification of its request for approval of the EPB. In the clarification, IPL stated that it was requesting the Board to approve the EPB "for the 24-month period beginning on April 1, 2002, taking into consideration

that certain costs incurred during this period are part of a series of investments extending over a longer period of time."

On June 17, 2002, the Board issued an order assigning the case to the undersigned administrative law judge. The Consumer Advocate and the DNR filed testimony and exhibits on June 21, 2002. IPL filed rebuttal testimony on July 12, 2002. The DNR filed an affidavit on July 23, 2002.

Iowa Code Supp. § 476.6(25)(d) provides that the Board shall issue an order approving or rejecting an EPB within one hundred eighty days after the utility's filing is deemed complete. An order requiring additional information was issued August 28, 2002. In the order, the term "complete" was interpreted to mean "complete" with respect to those types of emissions with associated compliance expenses that the utility included in its EPB. The term "complete" was also interpreted in a functional way. "Completeness" was interpreted to mean that the EPB must include sufficient information for the DNR to perform its statutory duties under paragraph 476.6(25)(a)(4), and for the Board to be able to evaluate the EPB and determine whether it meets the statutory requirements in paragraph 476.6(25). "Completeness" was also interpreted to relate only to the information in the EPB for the two-year time period beginning April 1, 2002. The order also interpreted the term "facilities" in the second sentence of paragraph 476.6(25)(a) to mean only coal-fired electric generation facilities. Given these interpretations, the August 28, 2002, order found the EPB was not complete and IPL was ordered to provide additional

information and answers to questions. IPL filed additional information on September 25, 2002.

On October 11, 2002, an order was issued deeming the EPB complete, setting a procedural schedule, and establishing a hearing date. IPL was directed to answer certain questions in prepared testimony. IPL filed its testimony October 30, 2002, the Consumer Advocate filed additional rebuttal testimony on November 20, 2002, and IPL filed additional rebuttal testimony on December 2, 2002. IPL filed a correction to its September 25, 2002, additional information on December 9, 2002.

IPL raised two issues to be decided in both this proceeding and in IPL's rate case, Docket Nos. RPU-02-3 and RPU-02-8 (the rate case). The two issues are: 1) the appropriate depreciation schedule(s) for the capital costs related to the Combustion Initiative (CI); and 2) whether the CI expenses for M.L. Kapp Unit 2 for the period April 1, 2002, through December 31, 2002, should be approved (the mutual issues). In a telephone conference call held December 2, 2002, the undersigned proposed that the mutual issues be litigated and decided in the rate case. The Consumer Advocate and the DNR objected. Therefore, on December 3, 2002, the undersigned issued an Order Regarding Mutual Issues, providing that the parties could continue to litigate the mutual issues in this proceeding. The order further provided that, at the conclusion of the hearing in this case, the parties would be given the opportunity to object to the proposal that the mutual issues be decided in the rate case.

The hearing in this case was held beginning at 9:30 a.m. on December 9, 2002, in the Board hearing room, 350 Maple Street, Des Moines, Iowa. All parties were present at the hearing. Mr. Daniel Mineck, Mr. Alan Arnold, Mr. James Klosterbuer, Mr. Charles Ohl<sup>1</sup>, Mr. Martin Seitz, Ms. Fern Hosfeld, and Mr. Dana Maas testified on behalf of IPL. The undersigned requested additional information and IPL agreed to file it on December 23, 2002. The other parties were given the opportunity to object or request cross-examination regarding the new information by January 7, 2003. Mr. Charles Fuhrman testified on behalf of the Consumer Advocate. Ms. Catharine Raffensperger Fitzsimmons and Mr. David Phelps testified on behalf of the DNR. At the hearing, the undersigned took official notice of Late-filed Exhibit 23, consisting of six pages, filed on November 19, 2002, by IPL in the rate case. At the conclusion of the hearing, when asked, IPL, the Consumer Advocate, and MidAmerican did not object to the proposal to decide the mutual issues in the rate case, and not in this case. (Tr. 284-87). The DNR objected unless it was allowed to intervene in the rate case for three limited purposes. (Tr. 285-90).

On December 12, 2002, the undersigned issued an order stating that a decision regarding whether the mutual issues would be decided only in the rate case would be made after the Board ruled on the DNR's petition to intervene in the rate case, and notifying the parties they did not need to brief the mutual issues in this case. The DNR filed a petition to intervene in the rate case on the same date, and the Board issued an order on December 26, 2002, granting the petition. On

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<sup>1</sup> Mr. Ohl adopted the prefiled testimony of Mr. Gary Walling and associated schedules. (Tr. 93).

January 8, 2003, the undersigned issued an order finding that since the Board would decide the mutual issues in IPL's rate case, they would not be decided in this proceeding.

IPL filed Late-Filed Exhibit 9, Schedules A, B, and C, Late-Filed Exhibit 10, Schedules A and B, Late-Filed Exhibit 11, and Late-Filed Exhibit 12 on December 23, 2002. The January 8, 2003, order also required IPL to file additional information, and IPL filed it as required on January 15, 2003. The other parties did not object to or request cross-examination regarding the additional information.

IPL, the Consumer Advocate, and MidAmerican filed initial briefs on January 31, 2003. IPL and the Consumer Advocate filed reply briefs on February 10, 2003.

## **DISCUSSION OF THE EVIDENCE AND ANALYSIS**

### **I. DNR Statutory Obligations and Plan Compliance with Current Requirements.**

According to Iowa Code Supp. § 476.6(25)(a)(4), the DNR must state whether the EPB meets applicable state environmental requirements for regulated emissions, and if it does not, must recommend amendments to the EPB that outline actions necessary to bring it into compliance with environmental requirements. The Board may not approve an EPB that does not meet applicable state environmental

requirements and federal ambient air quality standards<sup>2</sup> for regulated emissions from electric power generating facilities located in Iowa. Iowa Code Supp. § 476.6(25)(b).

On behalf of the DNR, Ms. Fitzsimmons testified that, to her knowledge, there are no areas of noncompliance at any of the plants at issue in this case that should have been addressed in the EPB. (Tr. 256). She further testified that the EPB meets applicable state environmental requirements for regulated emissions. (Tr. 256). IPL presented evidence that it is currently in compliance with all applicable environmental requirements. (Tr. 87-88, 119-121, 125; Exhibit 2, Schedules A – D). There is no evidence in the record to the contrary. Therefore, it is reasonable to find that the plan meets applicable state environmental requirements and federal ambient air quality standards for regulated emissions from the six coal-fired electric generating facilities at issue in this case.

**II. Whether approval of EPB activities and budgeted amounts that are not required by state or federal environmental law conforms to the language and intent of Iowa Code Supp. § 476.6(25).**

Iowa Code Supp. § 476.6(25)(c) states that the Board shall review the EPB, and shall approve it "if the plan or update and the associated budget are reasonably expected to achieve cost-effective compliance with applicable state environmental

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<sup>2</sup> The difference between paragraph 476.6(25)(a)(4), which requires the DNR to state whether or not the plan meets applicable state environmental requirements for regulated emissions, and paragraph 476.6(25)(b), in which the board shall not approve a plan that does not meet applicable state environmental requirements and federal ambient air quality standards for regulated emissions, is not significant, because DNR has been delegated responsibility for implementing a program sufficient to protect against a violation of the federal ambient air quality standards, and has incorporated those standards into its State Implementation Plan (SIP). (Tr. 238-239) In effect, for the purposes of interpreting section 476.6(25), the federal ambient air quality standards are applicable state environmental requirements.

requirements and federal ambient air quality standards" (emphasis added). In its EPB, IPL is not asking for approval for a plan and budget to meet currently applicable environmental requirements. (Tr. 111; EPB p. 4; Additional Information filed September 25, 2002, p. 32). As IPL stated, the EPB includes activities and a budget "that are not explicitly mandated by current law or regulation but that are consistent with their intent and requirements." (EPB p. 4). There is no current state or federal environmental law that requires any of the actions proposed in the EPB. (Tr. 111; EPB pp. 4, 19-22; Additional Information filed Sept. 25, 2002, p. 32). In the EPB, IPL proposes to take actions to reduce emissions that it expects will be required in the future. (Tr. 111-112, 121-122; EPB pp. 4, 19-22; Additional Information filed Sept. 25, 2002, p. 32).

In paragraph 476.6(25)(a), the statute says that "it is the intent of the general assembly that the state, through a collaborative<sup>3</sup> effort involving state agencies and affected generation owners, provide for compatible statewide environmental and electric energy policies with respect to regulated emissions from rate-regulated electric power generating facilities in the state that are fueled by coal" (emphasis

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<sup>3</sup> Although the statute uses the term "collaborative effort," it is doubtful whether the process established in paragraph 476.6(25)(a) is a collaborative process. To collaborate means "to work, one with another; cooperate, as on a literary work." Random House Dictionary of the English Language, Second Edition, Unabridged (1987). Since the EPB is required to be considered in a 17A contested case, ex parte rules apply, and the Utilities Board is prohibited from communicating with the parties regarding the merits of the case outside the normal hearing process. The Board clearly could not work together with DNR, the Consumer Advocate, IPL, and any intervenors as suggested in paragraph 476.6(25)(a). The statute is collaborative only in the sense that DNR, as a party to the case, states whether the plan meets applicable state environmental requirements and provides expert opinion regarding the plan, and the Board relies on DNR's statement and expertise in making its decision.



added). The purpose of the actions proposed in the EPB is to reduce nitrogen oxides (NOx) emissions and improve overall boiler efficiency. (EPB pp. 19-21; Tr. 121; Exhibit 2, Schedule E, pp. 3, 9-10). Although NOx emissions are currently regulated, they are not regulated at the levels targeted in the EPB. IPL's coal-fired plants in Iowa are already in compliance with current NOx emission requirements. Therefore, it is questionable whether NOx emissions at the levels IPL proposes to reduce them are regulated emissions within the meaning of paragraph 476.6(25)(a).

Similarly, as discussed above, paragraphs 476.6(25)(a)(4), 476.6(25)(b), and 476.6(25)(c) refer to "applicable" state environmental requirements and federal ambient air quality standards. The language of the statute clearly contemplates that utilities will address currently regulated emissions and currently applicable requirements in their EPBs. Although IPL could have included a plan and budget for compliance with currently applicable requirements in its EPB, it did not do so.

There is only one paragraph in the statute suggesting the legislature contemplated that utilities may choose to include actions in an EPB that are not currently required. Iowa Code Supp. § 476.6(25)(f) states that it is the intent of the general assembly that the Board "may limit investments or expenditures that are proposed to be undertaken prior to the time that the environmental benefit to be produced by the investment or expenditure would be required by state or federal law." Clearly, the Board could refuse to approve all of the proposed expenditures contained in the EPB, or could limit them, because they are not required by currently

applicable state or federal environmental law. However, the Board is not required to do so, because paragraph 476.5(25)(f) is permissive, not mandatory. Therefore, approval of proposed actions and expenditures prior to the time they are required is not necessarily incompatible with the language of the statute. The utilities and the Consumer Advocate supported this position, and DNR did not oppose it. (Consumer Advocate Initial Brief, p. 2; IPL Initial Brief, pp. 5-12; MidAmerican Initial Brief, pp. 17-19).

The purpose of the statute is to provide advance assurance to utilities that they will be able to include approved reasonable EPB costs in their regulated retail rates. Iowa Code Supp. § 476.6(25)(c) and (e). (Additional Information filed Sept. 25, 2002, pp. 2-3; IPL Initial Brief p. 11). The statute does not impose additional environmental requirements. Given the purpose of the statute, it does not appear that approval of proposed budgetary amounts prior to the time they are required would necessarily violate the intent of the statute. The utilities supported this position, and the DNR did not oppose it. (Additional Information filed September 25, 2002, pp. 24-28; IPL Initial Brief, pp. 5-12; MidAmerican Initial Brief, pp. 17-19). The Consumer Advocate agreed that the Board should not limit investments and expenditures proposed by IPL for the two-year period ending April 1, 2004, and that approval would be consistent with Iowa Code Supp. § 476.6(25). (Tr. 222-223; Consumer Advocate Initial Brief, pp. 1-2).

**III. Whether IPL's proposed emissions plan and budget should be approved.**

The statute provides no explicit criteria or guidance as to whether or when the Board should limit proposed expenditures pursuant to paragraph 476.6(25)(f). However, the statute contains such criteria to be used by the Board when it evaluates a plan and budget with respect to currently applicable environmental requirements. It is reasonable to use this language as guidance when evaluating proposed activities and expenditures that will be undertaken prior to the time they are required. The utilities and the Consumer Advocate supported this position, and DNR did not oppose it. (IPL Initial Brief, pp. 5-12; MidAmerican Initial Brief, pp. 17-19; Consumer Advocate Initial Brief, pp. 1-2) The Consumer Advocate stated the Board should limit proposed investments and expenditures under the paragraph when they are unnecessary, may become obsolete, are excessive in volume or cost, or for similar reasons. (Consumer Advocate Initial Brief, pp. 7-8).

Paragraph 476.6(25)(c) provides that the Board shall approve the plan and budget if they are "reasonably expected to achieve cost-effective compliance" with applicable requirements. "In reaching its decision, the board shall consider whether the plan or update and the associated budget reasonably balance costs, environmental requirements, economic development potential, and the reliability of the electric generation and transmission system." Iowa Code Supp. § 476.6(25)(c). Iowa Code Supp. § 476.6(25)(e) provides that the "reasonable costs" incurred for preparing, filing, and participating in Board proceedings, and the "reasonable costs"

of implementing the plan shall be included in regulated retail rates. Paragraph 476.6(25)(e) provides further support that the budget is to be reviewed for reasonableness under paragraph 476.6(25)(c). The EPB will be evaluated using these criteria. IPL must present sufficient evidence to prove its EPB meets the criteria contained in the statute.

When discussing whether the EPB should be approved, the parties relied heavily on their belief that future environmental requirements applicable to coal-fired power plants in Iowa will be increasingly stringent and will require significant additional reductions of emissions, including NO<sub>x</sub>. (EPB, pp. 10-15, 18, 20-21, Attachments A - F; Tr. pp. 121-122, 135-136; Additional Information filed September 25, 2002, pp. 25; IPL Initial Brief pp. 6, 12, Consumer Advocate Initial Brief p. 2). The DNR agreed with this belief, and DNR witness Ms. Fitzsimmons testified that "based on my knowledge of US Congressional and Presidential priorities and initiatives, multi-pollutant legislation will be passed that will affect coal-fired boilers at electric generating utilities, but I agree with IPL that at this time the impact to IPL cannot be estimated." (Tr. 244). She further testified that it is reasonable to assume that the trend of increasingly stringent environmental requirements applicable to coal-fired power plants will continue, and that it is reasonable to assume that additional NO<sub>x</sub> reductions will be required from these plants. (Tr. 253-4). There is no evidence to the contrary in the record. However, the levels of reductions that will be required are not known, and the times for required compliance are not known.

(EPB, pp. 10–15, 20–22, Attachments A-F; Tr. 121-22, 135-36, 244-47, 252-54; Additional Information filed Sept. 25, 2002, p. 25) IPL witness Mr. Klosterbuer testified that all proposed bills and the President's plan reflect requirements to reduce NO<sub>x</sub>, sulfur oxides, and mercury emissions by 75 percent or more over a time period ranging from five to ten years, and that even if this legislation does not pass, anticipated rulemakings will be finalized in the next few years and require significant additional reductions for one or more air pollutants. (Tr. 136).

Based on the record, as of the date of this proposed decision, it is reasonable to assume that significant additional air emission reductions will be required from the six plants in the future. This is a record-specific and date-specific finding that will be re-evaluated with each EPB and update filed with the Board in which IPL proposes actions and expenditures not required by currently applicable environmental law. Therefore, in evaluating the reasonableness and cost-effectiveness of the proposed actions and budget, and when considering whether the plan and budget reasonably balance the factors listed in paragraph 476.6(25)(c), the undersigned will assume that there will be increasingly stringent environmental requirements for air emissions, and NO<sub>x</sub> in particular, from the six plants at issue in this case, and that reductions of emissions in the range of the levels and during the timeframes discussed in the EPB will be required.

In its EPB, IPL proposed two projects, the Combustion Initiative (CI) and the Switchgrass Project. IPL is not requesting approval of the Switchgrass Project

budget in this EPB. (EPB p. 33; Additional Information filed Sept. 25, 2002, p. 30). IPL is requesting approval of the Combustion Initiative and budget only for the two-year period ending March 31, 2004, "taking into consideration that certain costs incurred during this period are part of a series of investments extending over a longer period of time." (Clarification of Application; Additional Information filed Sept. 25, 2002, pp. 5-8, 30-31, 48-50, 53).

The CI proposes to "reduce NOx emissions by optimizing the combustion environment within coal-fired units. By doing so, a substantial reduction in NOx emission levels is obtained." (EPB, p. 17). "For NOx reduction, IPL is utilizing the CI Project, a comprehensive combustion optimization program that offers the potential for economic emissions performance without degradation of fuel efficiency and thermal performance, compared to post-combustion strategies. Although there are no current explicit requirements for reduced NOx emissions, IPL believes optimizing boiler performance is the right first step before considering any further investment in costly post-combustion controls." (EPB, p. 19; Tr. 121; Exhibit 2, Schedule E). Although IPL is focusing on NOx reductions, it believes that the CI will better position the plants to reduce other air emissions such as sulfur dioxide, carbon monoxide, and particulate matter. (EPB p. 19; Additional Information filed September 25, 2002, pp. 32-33).

In general, the CI involves three components: 1) inspection of equipment to identify operation or design characteristics that can be improved to improve plant

performance; 2) use of computational fluid dynamic modeling to simulate performance of boiler combustion processes and model changes to equipment or control strategy to select optimum changes for full-scale implementation; and 3) implementation of selected combustion technologies or control strategies to optimize combustion performance to reduce emissions while preserving fuel efficiency and thermodynamic performance. (EPB, p. 23; Exhibit 2, Schedule E).

IPL stated that the actions proposed in the CI are expected to be implemented at lower capital costs than post-combustion emission controls, without the chemical treatment costs associated with some post-combustion technologies, and without degradation of fuel efficiency and thermal performance associated with some post-combustion strategies. (EPB p. 19; Tr. 96–97; 111-13; Exhibit 4, Schedules A and B).

The CI currently includes the following six large coal-fired plants operated by IPL in Iowa: M.L. Kapp (Kapp), Burlington Generating Station Unit 1 (Burlington), Lansing Unit 4 (Lansing), Ottumwa Generating Station Unit 1 (Ottumwa), Prairie Creek Unit 4 (Prairie Creek), and Sutherland Station Unit 3 (Sutherland). (EPB p. 26). The 1999 NO<sub>x</sub> emission levels at the six plants ranged from 0.210 to 0.710 lbs/mmBtu. (EPB p. 27; Additional Information filed Sept. 25, 2002, pp. 44-45). IPL expects to achieve emission reductions from the CI so that NO<sub>x</sub> emission levels at

the six plants would range from 0.15 to 0.35 lbs/mmBtu<sup>4</sup>. (EPB p. 27; Exhibit 2, Schedule E, pp. 9-10, 39, 56-61; Additional Information filed September 25, 2002, pp. 33-36, 44-45). IPL's target NOx emission level through the CI activities is a fleet-average emission of 0.15 lb/mmBtu. (Additional Information filed Sept. 25, 2002, p. 33).

The EPB described a number of activities to improve boiler performance and low NOx technologies IPL expects to apply to some or all of the six plants as a part of the CI, and IPL filed an exhibit with its EPB containing a preliminary list of the activities and technologies it expects to apply at each of the six plants. (EPB pp. 23-26; Exhibit 2, Schedule E, pp. 3-9). The particular technologies used at each plant will depend upon the boiler design, different equipment, and operational conditions encountered at each plant as the CI is implemented. (EPB p. 23; Additional Information filed Sept. 25, 2002, pp. 3-4; Exhibit 2, Schedule E, pp. 3-9; Additional Information filed Sept. 25, 2002, p. 3). IPL filed additional detailed information that described planned CI activities and technologies and why it chose them for each plant on September 25 and October 30, 2002,<sup>5</sup> and testified to

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<sup>4</sup> It must be noted that these reductions are expected to be achieved as a result of actions taken through 2006. There is no evidence regarding the levels of reductions expected as a result of the actions taken through March 31, 2004, the time period of this EPB. DNR witness Ms. Fitzsimmons testified she believed the CI actions for the years 2002-2004 had the potential to reduce NOx emissions. It should also be noted that the NOx emission limit in the air construction permit for the Sutherland plant is 0.45 lb/mmBtu. (Exhibit 200, Schedule C, p. 37; Additional Information filed Sept. 25, 2002, pp. 44-45).

<sup>5</sup> IPL filed much of the information regarding the timing of specific activities and which are proposed for each plant as confidential, pursuant to 199 IAC 1.9, so this order cannot always include such specifics even when the record contains such information. Most of the detailed descriptions of the proposed activities and low NOx technologies were not filed confidential.



additional detail at the hearing. (Additional Information filed Sept. 25, 2002, pp. 5-23, 38-43, 48-52; Confidential Attachment – Item #12; Tr. 162-67, 181-91; Confidential Exhibit 6) It filed additional detail in late-filed exhibits on December 23, 2002, and January 15, 2003. (Confidential Exhibits 9 and 10).

IPL began to develop and implement the CI in 1999 at the Kapp plant in Clinton, Iowa. (EPB p. 20; Tr. 97). The combustion improvements proposed in the CI were tested at Kapp, and IPL demonstrated a NO<sub>x</sub> emission reduction exceeding 50 percent for that plant. (Tr. 97). IPL is confident it can achieve the targeted NO<sub>x</sub> reductions at the Burlington, Ottumwa, and Sutherland generating stations. (Tr. 97-98). Due to more variable industry experience of NO<sub>x</sub> reductions for the type of boiler at Prairie Creek, and because low NO<sub>x</sub> combustion technologies have not been demonstrated for the type of boiler at Lansing, IPL proposes to perform modeling of these two boilers before making large capital expenditures. (Tr. 98).

Although not required because the CI actions would reduce emissions, IPL submitted an air construction permit application to the DNR for the CI activities for the six plants. (Tr. 122-123, 125-126, 262-3, 266; Exhibit 2, Schedule E; Exhibit 200, Schedule B). Each permit application listed approximately 16 possible investigative techniques and physical and operational modifications to the plant boiler to optimize boiler performance. (Tr. 264-65). DNR witness Mr. Phelps, supervisor of the air construction permitting section, testified that permits were issued on June 12, 2003 for the M.L. Kapp, Burlington, Lansing, and Sutherland plants. (Tr. 263). The Linn

County Health Department, which issues permits in Linn County, will issue the permit for the Prairie Creek Plant. (Tr. 263) DNR issued a construction permit for the CI activities for the Ottumwa plant in the fall of 2002. (Tr. 126, 128, 264). The permits set the NOx emission limits requested by IPL, ranging from 0.15 lb/mmBtu to 0.45 lb/mmBtu. (Tr. 129-130, 263-264, 269-270; Exhibit 200, Schedule C; Additional Information filed Sept. 25, 2002, p. 45). Permits do not specify which of the technologies will be applied at each plant, because initial modeling of the boiler for each plant had not been conducted when the permits were issued. (Tr. 265). The permits specify only that the permit limits must be met using some or all of these technologies. (Tr. 265). IPL must meet permit limits at each plant once the proposed CI activities and equipment are put into service, with a maximum time limit of 36 months from the date the permit was issued to complete the work. (Tr. 130; Exhibit 200, Schedule C).

DNR witness Mr. Phelps testified that the CI, if carried out according to the EPB, will reduce NOx emissions at the six Iowa plants at issue in this case. (Tr. 272). Mr. Phelps also testified that DNR believes the requested NOx emission limits for the six plants can be met using these technologies, or at least that there is the potential that they can be met, although the technologies proposed must be used in combination. (Tr. 265, 271-73). He based this opinion on the reductions seen through application of the technologies at the M.L. Kapp plant. (Tr. 265).

IPL proposes to begin the CI activities prior to the time they are required by applicable state and federal environmental law for several reasons. As discussed above, IPL believes that additional air emission reductions will be required from its coal-fueled plants within the next five to ten years, although emission standards and required times to meet the new standards are unknown. Therefore, the CI focuses on optimization of combustion and minimizing new technology equipment expenditures. (Additional Information filed Sept. 25, 2002, p. 25). IPL stated that effective, advanced combustion programs require several years of development. (Additional Information filed Sept. 25, 2002, p. 36). CI activities have been planned to occur during routine maintenance outages, to minimize the effects of the numerous plant outages that will be necessary to complete the project. (Tr. 112; Additional Information filed September 25, 2002, pp. 3, 26, 37). The success of the CI depends on being able to perform the work over a number of years. (EPB, p. 19; Additional Information filed Sept. 25, 2002, pp. 27, 49-50). IPL intends to use a series of small projects where results may be analyzed after each step, and incremental improvements made with each regularly scheduled outage. (Id.) If emissions work is not started until future compliance deadlines are established, IPL believes it is unlikely adequate time would be available to implement the technology proposed in the CI. (Id.) In addition, IPL hopes to complete the CI prior to the time other post-combustion emission compliance projects may be required by future legislation or rules, to minimize future investments in post-combustion controls. (Tr. 112). Finally,

IPL stated that contractor, engineering, and construction resources can be stretched thin during short-time compliance timeframes, increasing the cost of the projects. (Additional Information filed Sept. 25, 2002, pp. 28, 37). The high demand for vendors could result in unavailability of IPL's preferred vendor during the compliance window, or the vendor not having the manufacturing capacity to meet IPL's needs. (Id.) IPL testified it is more cost-effective to begin implementing changes now that it knows will be required in the future, and that this is the lowest-cost approach to reducing emissions at the six plants. (Tr. 87, 112). It stated that ratepayers will benefit from this approach because it is a phased-in cost-effective implementation plan rather than a short-term implementation plan. (Additional Information filed Sept. 25, 2002, pp. 3, 28)

IPL stated that the CI work will support and enhance economic development in Iowa by reducing NOx emissions, thereby improving air quality and providing additional margins above regulatory requirements so that new business and industry may more easily obtain required air permits. (Additional Information filed Sept. 25, 2002, pp. 25-26) It also stated the phased approach that minimizes the number of plants out of service at any one time will improve reliability of the electric system. (Additional Information filed Sept. 25, 2002, pp. 27-28)

Assuming the parties are correct that significantly more stringent environmental requirements, including significant NOx reductions, will be required of the six generating plants, IPL has presented sufficient, uncontroverted evidence to

support a finding that its approach and the activities proposed for the CI in the EPB are reasonable. This finding relates only to the activities proposed for the two-year period ending March 31, 2004.

The next step in evaluating the EPB is to determine whether the budgeted amounts are reasonably expected to achieve cost-effective compliance with applicable or reasonably anticipated future environmental requirements, reasonably balance costs with the other statutory criteria, are reasonable, and therefore should be approved in this proceeding. Iowa Code Supp. § 476.6(25)(c) and (e). If proposed budgeted amounts are not approved in this EPB case, there is nothing in the statute that would prevent IPL from attempting to receive after-the-fact approval for the amounts spent in a traditional rate case. However, if the budgeted amounts are approved in this case, it will minimize the risk for IPL that expenditures for the EPB activities would not be approved in a future rate case.

IPL provided detailed cost information and explanations of the basis for the CI amounts budgeted for each plant for the period April 1, 2002, through March 31, 2004<sup>6</sup>. (EPB pp. 18-19, 28-30, 33, Attachment G, p. 3; Additional Information filed September 25, 2002, pp. 5-9, 23, 36-43, 46-48, 51-53; Confidential Attachment – Item #12; Tr. 149-50, 161-63, 170-79, 182-214; Confidential Exhibit 6; Late-filed Exhibits 9, 10, 11; Revisions to Exhibit 9 filed Jan. 15, 2003). All capital costs for the proposed equipment and activities are based on previous work at other Alliant

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<sup>6</sup> IPL filed almost all of the budget information as confidential, pursuant to 199 IAC 1.9, so this order cannot include specific budgeted amounts even when the record contains such information.

Energy plants and proposals from equipment manufacturers, and control equipment is either unique, strictly evaluated, or competitively bid so that it is the lowest cost or most cost-effective choice for each plant. (Additional Information filed September 25, 2002, pp. 45-47; Late-filed Exhibit 9). IPL presented evidence that post-combustion emission controls have large capital and annual chemical costs, and that the proposed CI activities and low-NOx combustion technologies are expected to be implemented at lower capital costs and with no chemical treatment costs. (EPB, p. 19; Additional Information filed Sept. 25, 2002, pp. 9, 36-43).

Due to outage schedules extending beyond March 31, 2004, some of the proposed work may be completed within several weeks after the March 31, 2004, end date for this EPB. (Additional Information filed Sept. 25, 2002, pp. 5, 23; Confidential Attachment – Item #12; Tr. 171-72). Even though the work may not be completed until a short time after March 31, 2004, the entire budgeted amounts for this work have been included in this EPB and IPL is requesting approval for them. (Additional Information filed Sept. 25, 2003, pp. 3, 23; Tr. 171-72). Since this delay is so minor, and the work will be completed during the spring 2004 outages, the work and budgeted amounts will be treated as if the work were going to be completed entirely before March 31, 2004.

Evidence in the record submitted by IPL showed that some items proposed for the CI were not yet commercially available, and the parties were asked to brief the question of whether the Board should approve budget amounts for the items not yet

commercially available. (Tr. 161-63, 173-75). On January 15, 2003, IPL filed evidence that clarified all items it proposes to install are now commercially available, although several listed items are not currently available in the form or up to the standards that the CI requires. (Revised Exhibit 9). IPL witness Mr. Maas testified IPL is confident the items will meet the CI requirements, and IPL will not install equipment that is not commercially viable. (Tr. 163). Since it appears the items are commercially available and will likely meet CI standards within the two-year period of this EPB, budgets for these items will be treated the same as the rest of the budgeted items.

The Consumer Advocate did not propose any cost disallowance for the CI budget for the two-year period ending March 31, 2004. (Tr. 223).

IPL has presented sufficient, uncontroverted evidence to prove the amended CI budgeted amounts, contained in Late-filed Exhibit 9 (as amended Jan. 15, 2003), for the two-year period ending March 31, 2004, are reasonably expected to assist with achievement of cost-effective compliance with future environmental requirements and are reasonable<sup>7</sup>.

IPL has presented sufficient, uncontroverted evidence to prove that the plan and associated budget are reasonably expected to assist with achievement of cost-effective compliance with future state environmental requirements and federal

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<sup>7</sup> The Board will rule on the 2002 expenses for M.L. Kapp in the rate case.

ambient air quality standards, particularly with respect to NOx emissions, that will be imposed on the six Iowa plants at issue in this case within the next five to ten years. It has presented sufficient, uncontroverted evidence to prove the plan and budget reasonably balance costs, environmental requirements (current and future), economic development potential, and the reliability of the electric generation and transmission system.

The emissions plan and budgeted amounts are therefore approved. Approval of the budget is not approval of a gross amount for all activities at all six plants. Rather, it is approval of the plant-specific, activity-specific budget for the amounts contained in Late-filed Exhibit 9 (as amended), for the period ending March 31, 2004.

**IV. Whether approval of IPL's proposed emissions budget also means approval of IPL's expenditures.**

Paragraph 476.6(25)(c) states that the Board shall review the proposed plan and associated budget and approve it if it meets the requirements of the statute. Paragraph 476.6(25)(e) states that the reasonable costs of preparing and litigating the plan and budget, and the reasonable costs of implementing it, shall be included in the utility's regulated retail rates.

In its reply brief, the Consumer Advocate stated it disagreed with the assertion in IPL's initial brief that the Board, in approving IPL's emissions budget, is also approving IPL's emissions expenditures. The Consumer Advocate stated it would fully address the matter in its brief in In re: MidAmerican Energy Company, EPB-02-156. It did so, and the significance in that case related to the appropriate



mechanism to recover costs. (Consumer Advocate Initial and Reply Briefs in EPB-02-156). In this case, IPL stated it would propose a mechanism to recover EPB costs in the rate case. (EPB, p. 6). Although the Consumer Advocate is correct that IPL referred to approval of expenditures in its initial brief, the significance of the difference between the term budget in paragraph 476.6(25)(c) and the term costs in paragraph 476.6(25)(e) is an issue that was not fully litigated or briefed in this case. It is an issue in MidAmerican's EPB case, Docket No. EPB-02-156, and will be discussed and decided in the decision in that case.

The only clarification that must be made in this case is that, although IPL's plan and budget is approved, only actual expenditures made pursuant to the plan and budget may be included in retail rates. Iowa Code Supp. § 476.6(25)(c) and (e). The Board will decide the mechanism to recover those costs in the rate case.

Additionally, there was no evidence presented regarding IPL's costs in preparing and filing the EPB and in participating in this proceeding, because they will not be known until the conclusion of this proceeding, so no evaluation of reasonableness has been done regarding those costs.

### **FINDINGS OF FACT**

1. IPL filed an emissions plan and budget with the Board pursuant to Iowa Code Supp. § 476.6(25) on March 29, 2002. It requests approval only for the activities and budget for the time period April 1, 2002, through March 31, 2004,

although some activities may be completed in scheduled outages ending within a few weeks after March 31, 2004.

2. The EPB includes two projects: the Combustion Initiative and the Switchgrass Project. IPL is not requesting approval of the Switchgrass Project budget in this EPB.

3. The EPB meets applicable state environmental requirements and federal ambient air quality standards for regulated emissions from the six IPL coal-fired electric generating facilities at issue in this case.

4. There is no current state or federal environmental law that requires any of the actions proposed in the EPB. In the EPB, IPL proposes to take actions to reduce NOx emissions that it expects will be required in the future.

5. Based on the record, as of the date of this proposed decision, it is reasonable to assume that significant additional air emission reductions, including NOx reductions, in the range of IPL's predictions will be required from the six plants at issue in this case within the next five to ten years.

6. The focus of the Combustion Initiative is to improve boiler performance and reduce NOx emissions at six of IPL's Iowa coal-fired generation plants.

7. Assuming the parties are correct that significantly more stringent environmental requirements, including significant NOx reductions, will be required of the six generating plants, IPL has presented sufficient, uncontroverted evidence to

prove that its approach and the activities proposed for the CI in the EPB are reasonable.

8. IPL has presented sufficient, uncontroverted evidence to prove the amended CI budgeted amounts, contained in Late-filed Exhibit 9 (as amended Jan. 15, 2003), for the two-year period ending March 31, 2004, are reasonably expected to assist with achievement of cost-effective compliance with future environmental requirements and are reasonable.

9. IPL has presented sufficient, uncontroverted evidence to prove that the plan and associated budget are reasonably expected to assist with achievement of cost-effective compliance with future state environmental requirements and federal ambient air quality standards, particularly with respect to NO<sub>x</sub> emissions, that will be imposed on the six Iowa plants at issue in this case. It has presented sufficient, uncontroverted evidence to prove the plan and budget reasonably balance costs, environmental requirements (current and future), economic development potential, and the reliability of the electric generation and transmission system.

10. The emissions plan and the budgeted amounts are therefore approved. Approval of the budget is not approval of a gross amount for all activities at all six plants. Rather, it is approval of the plant-specific, activity-specific budget for the amounts contained in Late-filed Exhibit 9 (as amended), for the period ending March 31, 2004.

### **CONCLUSIONS OF LAW**

1. The DNR must state whether the EPB meets applicable state environmental requirements for regulated emissions, and the Board may not approve the EPB if it does not meet applicable state environmental requirements and federal ambient air quality standards for regulated emissions. Iowa Code Supp.

§ 476.6(25)(a)(4) and (b). The difference between "applicable state environmental requirements" in paragraph 476.6(25)(a)(4), and "applicable state environmental requirements and federal ambient air quality standards" in paragraph 476.6(25)(b), is not significant, because DNR has been delegated responsibility for implementing a program sufficient to protect against a violation of the federal ambient air quality standards, and has incorporated those standards into its State Implementation Plan. In effect, for the purposes of interpreting section 476.6(25), the federal ambient air quality standards are applicable state environmental requirements.

2. The statute clearly contemplates that utilities will address currently regulated emissions and currently applicable environmental requirements in their EPBs. Paragraphs 476.6(25)(a), (a)(4), (b), and (c).

3. The Board shall approve the EPB if it is "reasonably expected to achieve cost-effective compliance with applicable state environmental requirements and federal ambient air quality standards." Iowa Code Supp. § 476.6(25)(c). The board "may limit investments or expenditures that are proposed to be undertaken prior to the time that the environmental benefit to be produced by the investment or

expenditure would be required by state or federal law." Iowa Code Supp.

§ 476.6(25)(f). The Board could refuse to approve the proposed EPB expenditures because they are not required by currently applicable environmental law. However, the Board is not required to do so, because paragraph 476.5(25)(f) is permissive, not mandatory. The purpose of the statute is to provide advance assurance to utilities that they will be able to include approved reasonable EPB costs in their regulated retail rates. Iowa Code Supp. § 476.6(25)(e). Approval of proposed actions and budgets prior to the time they are required by applicable environmental law is not necessarily incompatible with the language and purpose of the statute.

4. The statute provides no explicit criteria or guidance as to whether or when the Board should limit proposed expenditures pursuant to paragraph 476.6(25)(f). However, the statute contains such criteria to be used by the Board when it evaluates a plan and budget with respect to currently applicable environmental requirements. Iowa Code Supp. § 476.6(25)(c) and (e). It is reasonable to use this language as guidance when evaluating proposed activities and expenditures that will be undertaken prior to the time they are required.

5. Paragraph 476.6(25)(c) provides that the Board shall approve the plan and budget if they are "reasonably expected to achieve cost-effective compliance" with applicable requirements. "In reaching its decision, the board shall consider whether the plan or update and the associated budget reasonably balance costs, environmental requirements, economic development potential, and the reliability of

the electric generation and transmission system." Iowa Code Supp. § 476.6(25)(c). Iowa Code Supp. § 476.6(25)(e) provides that the "reasonable costs" incurred for preparing, filing and participating in Board proceedings, and the "reasonable costs" of implementing the plan, shall be included in regulated retail rates. This paragraph provides further support that the budget is to be reviewed for reasonableness under paragraph 476.6(25)(c).

6. Although IPL's plan and budget is approved, only actual expenditures made pursuant to the plan and budget may be included in retail rates. Iowa Code Supp. § 476.6(25)(c) and (e). The Board will decide the mechanism to recover those costs in IPL's rate case, RPU-02-3 & 8.

**IT IS THEREFORE ORDERED:**

IPL's Emissions Plan and Budget filed March 29, 2002, as amended and as discussed in this order is approved.

**UTILITIES BOARD**

/s/ Amy L. Christensen  
Amy L. Christensen  
Administrative Law Judge

ATTEST:

/s/ Sharon Mayer  
Executive Secretary, Assistant to

Dated at Des Moines, Iowa, this 14<sup>th</sup> day of March, 2003.